

Applicant Name Twin Bridges, Town of
Project Name Twin Bridges Wastewater System Improvements

Project Abstract

The Town of Twin Bridges is currently served by a central wastewater collection and treatment system originally constructed in 1963. The existing wastewater treatment facility was upgraded in 1991 by lining the two facultative lagoons, modifying piping, and installing a multi-level weir at the discharge to Bayers Ditch.

The existing treatment facility consists of two cells and has a detention time of about 129 days, neither meeting the Montana Department of Environmental Quality (DEQ) requirements. With the shortened detention times, marginally treated wastewater is discharged in Bayers Ditch, which meanders through agricultural land north of town. The existing discharge does not meet water quality standards for ammonia, resulting in ammonia toxicity in the receiving waters, which is harmful to fish, amphibians, and other aquatic life. The town has reached the 1993 non-degradation population and will exceed non-degradation limits with any additional growth.

The proposed solution is to upgrade the existing discharging facultative lagoon system by adding a storage lagoon and spray irrigation system. The existing two-cell facultative treatment lagoons will continue to provide primary treatment. A storage cell with a synthetic liner will be constructed on property immediately south of the existing facultative treatment lagoons. Effluent will be applied to the agricultural land at agronomic rates from April through October. When required in the future, sludge will be removed and land-applied at a suitable site. The proposed system will eliminate the discharge to Bayers Ditch and the need for a Montana Pollutant Discharge Elimination System (MPDES) permit. The proposed project will allow for beneficial reuse of nutrient-rich effluent and will remedy the most significant public health and safety problems relating to wastewater treatment and disposal in Twin Bridges. The project will allow the town to better manage an existing natural resource and will result in adequate system capacity to serve the town through the planning period, with consideration for expected community growth.